

## ABSTRACT OF THE DISCLOSURE

A cluster simulator simulates reformation of a real cluster in response to failure events. Profile programs on the cluster can gather data useful to the simulation and transmit the profile data to the simulator. The simulator can generate a model of the real cluster, the model itself being a virtual cluster. A user can select virtual failure events from a menu to apply to the model and the simulator responds by generating a post-failure virtual cluster in the configuration that the real cluster would assume in the event of the corresponding real failure. Sequences of virtual failures can also be tested for a given cluster configuration to evaluate its robustness. Comprehensive testing using virtual failure sequences can also be applied to different cluster configuration so that an optimum configuration can be recommended.